Remote Working and Using Online System

TOPIC 3 – ONLINE SYSTEMS

UNIT 1 – INFORMATION TECHNOLOGY SYSTEMS

Systems for Remote Working

Virtual Private Networks

- As Previous PP

Remote Desktop Technologies

- Allows a user to access their work desktop from home.
- Allow you to access the files and folders stored locally
- Allows access to business’ LAN, printers & software applications.

Choosing Online Systems

Changed the way we work.

We now find working remotely
- e.g. at home

Become increasingly easy.

Many people work from home almost all of the time

A number of factors to consider before implementing online services.

Factors of Remote Working

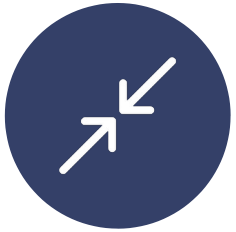
Write down the factors a school needs to consider before implementing Remote working

- Consider both staff and Employees
- Think about Lockdown last year how did this affect you or your friends/family

Factors Affecting Choice

SECURITY

COST



EASE OF USE

FEATURES

CONNECTIVITY

Factors Affecting Choice - Security

Transmit a lot of private and confidential information data over the internet.

Data might be intercepted while being transmitted and misused.

Cloud storage account could be hacked into and the data stolen that way.

Businesses can use a SSL to encrypt data

Factors Affecting Choice - Cost

Online systems are free to use for individuals

Organisations to pay a subscription fee to access the services.

Can increase or decrease your access depending on your business needs.

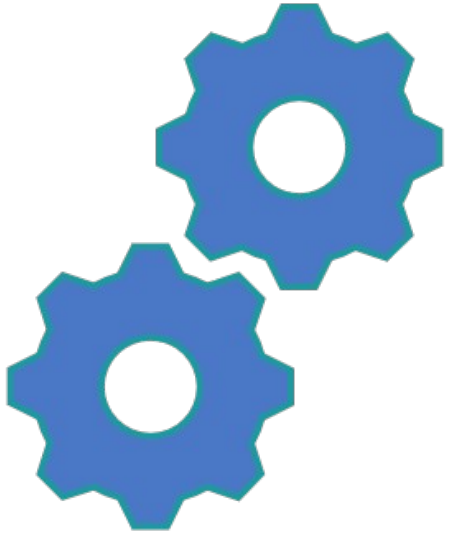
Additional costs include cost of your internet access

Factors Affecting Choice – Ease of Use

Many employees will not be strong in IT

Service providers website is accessible for all devices.

Does it have good technical support and user documentation



Factors Affecting Choice – Features

Business need to have certain features to perform its functions it needs

Features need to perform the tasks you want to perform

Ability to collaborate simultaneously on a document

Automatic syncing cloud storage files with local storage

Security features for protecting your data

Factors Affecting Choice – Connectivity

Using online systems will require a fast, reliable broadband internet connection.

Ability to transmit large quantities of data

Upload/download files to your cloud storage

Choosing an Online System

Online systems have changed the way we work. In particular, we now find working remotely, such as while at home, has become increasingly easy. Many people work from home almost all of the time and head into the office on rare occasions.

Before a business takes the step into using online services, such as cloud computing & storage, we need some special tools to help us. We also have a number of factors we must carefully consider before implementing online services.

Systems for Remote Working - VPN

As we saw in the lesson “Types of Networks”, a VPN is a private network that runs across the internet. This is used in business to allow a user to connect to their work LAN while working remotely, such as from home. Usually, this is to access private business documents and data.

Without a VPN, if we were to access business data remotely, the data could be intercepted during transmission by a malicious user. The data could then be released to the public or used for corporate espionage or blackmail.

The key to a VPN is that the data transferring between your computer and the business is encrypted, so you don’t need to worry about a malicious user intercepting private business data. This is because even if they intercept the data they would not be able to read it as it could be in a coded form.

A downside to a VPN is that it can be difficult to configure and deploy for a business and will need specialist staff with an excellent understanding of network and security to set it up.

Systems for Remote Working – Remote Desktop Technologies

THIS IS A TECHNOLOGY THAT ALLOWS A USER TO ACCESS THEIR WORK DESKTOP FROM OUTSIDE THE BUSINESS OFFICES. AN EXAMPLE OF REMOTE DESKTOP SOFTWARE IS THE MICROSOFT REMOTE DESKTOP UTILITY WHICH COMES WITH WINDOWS OPERATING SYSTEMS.

THIS SOFTWARE WILL NOT ONLY ALLOW YOU TO ACCESS THE FILES AND FOLDERS THAT YOU HAVE STORED LOCALLY ON YOUR WORK COMPUTER BUT CAN ALSO ALLOW YOU TO ACCESS THE BUSINESS' LAN, PRINTERS & EVEN SOFTWARE APPLICATIONS. THIS WAY YOU CAN PERFORM PRETTY MUCH ALL THE FUNCTIONS OF YOUR WORK LIFE, WITHOUT EVER GOING INTO YOUR BUSINESSES OFFICES.

THE DOWNSIDE TO THIS TYPE OF SOFTWARE IS THAT IT IS NOT GOOD FOR GRAPHICALLY INTENSIVE TASKS, AS ALL DATA HAS TO BE TRANSFERRED OVER THE INTERNET, WHICH CAN BE DIFFICULT TO KEEP WITH AND CAN CAUSE LAG. ALSO, IF YOUR BUSINESS NETWORK OR YOUR HOME INTERNET GOES DOWN YOU WON'T BE ABLE TO ACCESS ANY OF THE RESOURCES

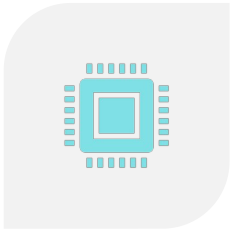
Systems for Remote Working – Activity

Have you ever used remote desktop software?

Research how to do this online and see if you can remotely access your computer from another device.

Factors Affecting Choice - Security

TO MAKE USE OF ONLINE SYSTEMS, SUCH AS CLOUD STORAGE, YOU NEED TO TRANSMIT A LOT OF DATA OVER THE INTERNET. THIS MAY EVEN BE VERY PRIVATE AND CONFIDENTIAL INFORMATION.



THIS IS A CONCERN FOR BUSINESS' AS THERE IS A DANGER THIS DATA MIGHT BE INTERCEPTED WHILE BEING TRANSMITTED AND MISUSED. ALSO, YOUR CLOUD STORAGE ACCOUNT COULD BE HACKED INTO AND THE DATA STOLEN THAT WAY.

SO IF A BUSINESS NEEDS TO TRANSMIT DATA PRIVATELY THEN THEY WILL NEED A SERVICE THAT PROVIDES GOOD SECURITY.

ONE METHOD THAT ONLINE SERVICE PROVIDERS USE TO ENSURE SECURITY IS THROUGH THE USE OF SSL. IF YOU HAVE EVER SEEN A WEB PAGE URL START WITH HTTP**S**:// INSTEAD OF HTTP:// THEN THAT WEBSITE HAS BEEN USING SSL TO ENCRYPT THE DATA BEING TRANSMITTED.

THIS MAKES IT SAFER FOR THE BUSINESS AS ANY DATA INTERCEPTED DURING TRANSMISSION WILL BE ENCRYPTED AND SO UNREADABLE.

Factors Affecting Choice - Cost

Many online systems are free to use for individuals, however, organisations will normally need to pay a subscription fee to access the services.

These subscriptions can usually scale with the business, where you can increase or decrease your access depending on your business needs. This is why online systems like cloud storage are so popular, they are flexible with the business.

Additional costs that need to be considered include things like the cost of your internet access. Fast, reliable broadband connections are necessary for a business to make use of things like cloud computing software and cloud storage.

This may mean paying more for a better connection than they business would otherwise need.

Factors Affecting Choice – Ease of Choice

Implementing new systems to a business can be difficult if they are not easy to use. Many employees will not be strong IT users and so the switch to using things like cloud computing software and cloud storage can be problematic.

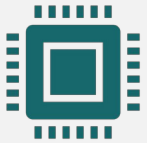
To ensure employees make use of the new online systems a business has subscribed to it is important that the system is easy to use for their employees.

This can be achieved by ensuring the service providers website is accessible to the user. For example, the website may need to be responsive to the type of device they are using. If the user accesses the service on a smartphone it will need an interface designed for smartphones, not one designed for desktop computers.

Another accessibility issue is disability access. Has the online system provider implemented features to ensure the service is accessible to users with individual needs such as a visual impairment? An example would be ensuring that the site works well with screen reading software.

If the online system provider has good technical support and user documentation, this will help the ease of use as users can access help easily should they need it.

Factors Affecting Choice – Features



Likely the most important factor when choosing an online system is the features that it offers. For your business to perform its functions it needs the systems it uses to have certain features.

This is just like when purchasing regular software. You need to make sure that it has all the features that you need to perform the tasks you want to perform.

This might be things like the ability to collaborate simultaneously on a document, automatic syncing cloud storage files with local storage, specific functionality in online software and security features for protecting your data.

Factors Affecting Choice – Connectivity

As we looked at in cost, using online systems will require a fast, reliable broadband internet connection.

Cloud storage, in particular, requires a business to be able to transmit large quantities of data, as you need to upload files to your cloud storage when saving and download them when loading them. If your business works with large files, such as a company in the film industry, then a fast broadband connection will be especially important.

Similarly, if your internet connection goes down then you won’t be able to access your online systems. Many businesses cannot afford to go without access to these services as they cannot continue to operate without them. Therefore a very reliable connection is extremely important.

Factors Affecting Choice – Activity

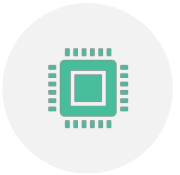
Have you ever used an online system, such as cloud storage?

When choosing the service, what factors did you consider?

Choosing an Online System - Summary

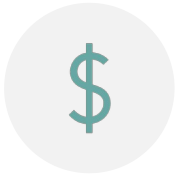
Virtual private networks are used in business to allow a user to connect to their work LAN while working remotely.

Remote desktop technologies allow a user to access their work desktop from outside the business offices.



The factors to consider when choosing an online system are security, cost, ease of use, features & connectivity.

Security is important as data being transmitted over a network can be intercepted. Features such as using SSL help to protect data by encrypting it.



Cost is a factor as most online systems will charge a subscription fee for organisations to access their services. This can vary from different companies and is often flexible to a businesses needs.

Ease of use is important as if employees find it difficult to use the online systems they will avoid them. Good accessibility for different devices and users with individual needs is important too.

The features offered by an online system provider is likely the most important factor. To perform our business functions we need the online system to have certain features.

Connectivity is a factor because online systems require fast, reliable broadband connections